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ABSTRACT

The Bureau of Indian Affairs' (BIA) Higher Education Program was evaluated in order to provide valid information for decision making. Data gathered by a questionnaire administered to 2,736 students in a previous study was refined by applying the chi-square test of significant differences to certain student characteristics and variables. Each area office also conducted its own evaluation and five areas (Juneau, Minneapolis, Muskogee, Phoenix, and Navajo) participated in an audit of their self-evaluation. The four variables selected for analysis were age, college classification, blood quantum, and area office serving "your" tribe. No significant differences were shown for college classification and age. Area office and blood quantum showed significant differences. In relationship to less than full-bloods, full-blood Indian students were more likely to have less parental encouragement to attend college; go to universities with 25 or more Indians enrolled or attend a private college; work toward an AA instead of a baccalaureate; speak their tribal language; live on campus; have special counseling services available to them; own and operate an automobile; or come from a home where the earnings are $3,000 annually. These differences could have an impact on the administration of programs. The educational audits pointed out a need for simplification and revision of record forms, but overall they showed that programs seem to be sound. (AH)

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## PREFACE

The evaluation of the Bureau of Indian Affairs Higher Education program was undertaken because the expansion of the program has been great and rapid in the past few years. Thus, valid information for decision-making was needed. The purpose of the evaluation was to place the administrators in a position to make sound decisions regarding programming and budgeting. One phase of the evaluation was to make comparisons between what were considered to be important variables of the program.

In order to make these comparisons, a survey comprised of a student questionnaire and an Area Office evaluation and audit was conducted. The questionnaire was sent to a reliable sample of those Indian Students who participate in the Bureau's Higher Education Program. The questionnaire was comprehensive ranging from questions on finances to attitudes on the program's goals and administration. The analysis of the survey data had two basic parts: (1) a description of the responses of the students as recorded by the questionnaire (published by the Bureau as Research and Evaluation Report No. 20-A) and (2) comparisons of selected variables using the Chi-Square test ($X^2$).

The Chi-Square test is a statistical tool used in education and social science research and evaluation that provides a mathematical picture of how well one variable fits with another or how actual findings compare with anticipated findings. Regarding the Higher Education survey, the Chi-Square was used in a large number of comparisons. What should be understood is how to interpret the findings that are presented in this report.

The report presents findings in relationship to anticipated responses. The differences between actual responses and anticipated responses are presented in terms of the Chi-Square statistic. To state that differences are significant between two variables, such as the difference between seniors and freshmen regarding age, reflects that there is a difference large enough to signify a behavioral deviation between the two. Importance attached to the difference is assigned by the person interpreting the data. It is not necessarily important that there is a significant difference in ages between freshmen and seniors as this would have been anticipated.

On the other hand, it is important to learn that there is a significant difference between full-bloods and less than full-bloods regarding the extent to which they seek and secure financial aid other than from the BIA. This significant difference would tell program officials that they should develop a sensitivity to full-bloods regarding this factor to determine the extent to which additional counseling would be required. The Chi-Square difference

reflects that full-bloods probably would be less likely to seek non-BIA sources of financial assistance. A more technical discussion of Chi-Square is contained in the Appendix of the report.

The data does point out some general findings which should be useful to program officials. There are important differences between full-bloods and less than full-bloods that could have an impact on the administration of the program. In relationship to less than full-bloods, full-blood Indian students are more likely to:

Have less parental encouragement to attend college;
Attend colleges or universitites having an Indian enrollment of 25 or more;
Attend a private college in relationship to a public institution;
Work toward an AA degree as compared to the baccalaureate;
Speak their tribal language;
Live on campus as contrasted to off-campus;
Have special counseling services for Indians available to them;
Be half as likely to own and operate an automobile;
Come from a family whose parents earn $3,000 or less annually

Additionally, there appeared to be a shift in the method of proving "Indianness", Freshmen are using parental statement to prove Indianness in a manner that is significantly different from seniors.

Using the items pertaining to attendance at a BIA school as a source of information, it appeared that the BIA elementary and secondary schools continue to deal mostly with the full-blood individual whom, it is assumed, is more traditional and closer to tribal lifeways. This was reinforced by a number of variables including the item pertaining to the speaking of the tribal language.

It is encouraging to learn that many of the students would want to return from college to work among Indian people. Many want to work specifically among their own tribe or community.

The report also includes some comparative data in relationship to national statistics on higher education which takes all college students, regardless of ethnic background, into consideration. The findings relative to these comparisons, which are informal rather than statistical, are dramatic.

It is important to realize that the Chi-Square difference is not an either-or situation and caution is advised against interpretation made in this manner. For instance, the fact that full-bloods are less likely to own and operate an automobile does not mean that no full-bloods own and operate automobiles. Indeed, 32.3% of the 1,258 sample of full-bloods owned and operated automobiles. It means what it states, that they (full-bloods) are <u>less likely</u> to own and

operate automobiles in contrast to less than full-bloods.

Last, there were far more items that when compared the differences were not significant or were not important. This reflects that the program is a healthy one and that it is being administered in a more than satisfactory manner.

## INTRODUCTION

The Division of Evaluation and Program Review recently conducted an evaluation of the Higher Education Program of the Bureau of Indian Affairs. The basic tool of this evaluation was a student questionnaire (See Appendix A). In addition, each Area Office conducted its own evaluation and four of these Areas participated in an educational audit. The latter will be addressed after the student questionnaire. One report, Research and Evaluation Report Series No. 20-A, covering student characteristics and opinions of the total questionnaire sample of 2736 was published in June, 1973. The present report is an attempt to refine this data applying the Chi Square ($X^2$) test of significant differences (See Appendix B for definition) to certain student characteristics or variables. Since present resources preclude analyzing all variables, four thought to be of use to the decision makers in the Higher Education Program were selected. They are (1) Age - 20 year olds and under vs. 21 year olds and over, (2) College Classification - Seniors vs. Freshmen, (3) Blood Quantum - Full Bloods vs. Others, and (4) Area Office serving "your" tribe. Regarding Variable 4, five Areas were selected - Juneau, Minneapolis, Muskogee, Phoenix and Navajo. The first four Areas participated in the audit of their self-evaluation. Navajo area was added since it represents such a large percentage of the population served by the Bureau.

Selection of these variables is based on several hypotheses.

1. Age was selected as a variable on the hypothesis that older students would have different perceptions and needs than younger students.

2. College Classification was selected on the hypothesis that seniors and freshmen would also differ due to the extent of their exposure to the academic environment and the age differential.

3. Blood Quantum was felt to be an important variable to consider in that Full Bloods and non-Full Bloods would probably bring different background characteristics which would affect their needs and perceptions regarding the Higher Education Program.

4. Area Offices were selected because previous information supplied by them indicated differences in the size and diversity of their Higher Education programs and in student needs.

## SUMMARY OF FINDINGS

The following data represent highlights of the responses to items on the student questionnaire.

1. Degree of Indian Blood

   Here College Classification (seniors v. freshmen) showed no significant differences. Age, too, proved not significant. Area Office proved to be highly significant as the table below indicates.

TABLE I BLOOD QUANTUM BY AREA

| AREA | TOTAL N RESPONDENTS | N | ( %) | SIGNIFICANT |
|---|---|---|---|---|
| NAVAJO | 507 | 486 | (95.8) | Significantly more FBs |
| PHOENIX | 161 | 140 | (86.9) | Significantly more FBs |
| ALBUQUERQUE | 250 | 198 | (79.2) | Not Significant |
| S E TRIBES | 35 | 18 | (51.4) | Not Significant |
| JUNEAU | 136 | 64 | (47.0) | Not Significant |
| ANADARKO | 279 | 109 | (39.0) | Not Significant |
| PORTLAND | 267 | 89 | (33.4) | Significantly less FBs |
| MUSKOGEE | 429 | 115 | (26.8) | Significantly less FBs |
| MINNEAPOLIS | 356 | 72 | (20.3) | Significantly less FBs |
| ABERDEEN | 180 | 28 | (15.6) | Significantly less FBs |
| SACRAMENTO | 85 | 10 | (11.8) | Significantly less FBs |
| TOTAL | 2,685 | 1,329 | | |

2. Method Used to Establish Blood Quantum

Seniors were significantly more apt to use Tribal Census or Role than was statistically anticipated. 67.2% of the Seniors responding checked this category. While 56.1% of the Freshmen checked Tribal Census, this was less than statistically expected. Freshmen, on the other hand, were significantly more apt to use Parents' Statement than statistically anticipated although only 10.3% of the Freshmen checked this item.

When age was analyzed it was found that twenty-year olds and younger were significantly more apt to use Parents' Statement while twenty-one year olds and older were significantly more apt to use Agency or Area certification.

An analysis by Areas showed that respondents from the Navajo Area were significantly more apt to use Tribal Census or Role. (87% checked this item.) Respondents from the Minneapolis Area were significantly more apt to use Agency or Area certification (42.4%) and those from the Juneau Area to use Parents' Statement (29.4%). Previous BIA experience (20.5%), Affidavit (13.9%) and Church Records (5.8%). The above data would appear to indicate a shift in the method of proving blood quantum.

3. Age

As anticipated, Seniors were more apt to be 21 and older (92.3%) while Freshmen tended to be 20 and under (69.2%).

Interestingly, there was a significant difference in age between male and female respondents with 61.2% of the males 21 and older as compared with 52.5% of the females 21 and over.

When Area offices were compared, the Albuquerque and Navajo Areas had significantly more twenty-year olds and under (55.6% and 43.5% respectively) while the Portland Area had significantly more twenty-one year olds and over (65.1%).

4. Sex

A significant difference here was by college classification with more Female freshmen (54.2%) and more Male seniors (54.8%) than statistically expected. When broken down by Areas, it was found that the Muskogee Area had significantly more Male respondents (54.2%) and the Navajo Area had significantly fewer Male respondents (40.7%) than statistically anticipated.

5. Marital Status

As might be expected, significantly more Seniors (47%) than Freshmen (22%) were married. Age differences, however, proved insignificant. With regard to blood quantum, more non-full bloods (34.8%) and fewer full bloods (28%) were married than statistically expected.

The Muskogee Area had significantly more married students (41.9%) and the Juneau and Navajo Areas had significantly less married students (16.9% and 22.4% respectively) than expected.

The National Center for Educational Statistics reports that 25.1% of the college students in the U.S.A. were married (as of October, 1971).[1]

6. Number of Children

Here the main significance was that a higher percentage of students from the Navajo Area had no children (42.8%) while a higher percentage of students from the Minneapolis Area than statistically expected had five or more children (15.8%).

1. Digest of Educational Statistics. National Center for Educational Statistics, Office of Education: DHEW. U.S. Government Printing Office: Washington, D.C., 1973

7. First Language Spoken

Although there were no significant differences between college classification or age groups, there were between degree of Indian blood and between Areas. 51.3% of the Full Bloods versus 5.2% of the non-Full Bloods indicated "Tribal" as their first language. Viewed from another perspective, 89% of those indicating "Tribal" were Full Bloods whereas 70.3% of those indicating English were non-Full Bloods. Comparing Areas, significantly more respondents from the Navajo Area and the Phoenix Area indicated "Tribal" 73.5% and 63.8% respectively - while more respondents from the Muskogee and Minneapolis Areas indicated "English" - 86.9% and 89.3% - than statistically expected. Responses from the Juneau Area broke down in the following way -"English" 57.1%, "Tribal" 24.2%, "Other" 18.7%. More respondents from the Juneau Area than would be statistically expected indicated "Other". (Only 5% of the total sample indicated "Other.")

8. Amount of BIA Support Per Semester/Quarter

While there were no significant differences between age groups or college classifications, there were between Areas and degree of Indian Blood. 12% of the Full Bloods indicated they received no BIA assistance as opposed to 3 % of the non-Full Bloods. The average for the total sample was 7%. 52.2% of the Full Bloods indicated they received $1 - $700 as opposed to 63.1% of the non-Full Bloods. The average for the total sample was 58%.

A breakdown by Areas revealed that 23.2% of the Navajo students indicated no BIA Support. This was significantly higher than statistically anticipated and was in marked contrast to the 2 - 3% indicated by students in the other four Areas compared.

One must be cautious in interpreting the above data, however. It was noted informally that Navajo students indicated consistently that they did not receive BIA support. This is a reflection of past practices when there was indeed little BIA support to Navajo Higher Education, then as it was mostly tribal. However, in January 1973 this was changed and the BIA started funding support for Navajo higher Education. Navajo Tribal Higher Education support was changed to Post Graduate support. Also, administration of Higher Education was contracted to the Tribe. Hence, the Navajo student today continues to deal only with the Tribe, and it is apparently communicated to them that they are being supported solely by the Tribe.

It should be noted that more respondents from the Navajo Area received grants of $701 - $1,000 (22.6%) than statistically expected.

In the case of the Juneau Area significantly more respondents received grants $701 - $2,000 than statistically expected (63.6%). For the Minneapolis Area, 50.3% received grants $1 - $500. For the Muskogee Area, 49.1% received grants of $301 - $700. Responses from the Phoenix Area fell within statistically expected limits with no significant differences.

9. Amount of non-BIA Support Per Semester/Quarter

While college classification was not significant, age was with significantly more 21 year olds and older receiving $700 or more. 69.9% of those receiving $700 or more were in this age group.

There were no significant differences in the amount of non-BIA support between Full Bloods and Others or between Areas with the exception of the Minneapolis Areas where significantly more respondents received assistance. Particularly in the $501 - $2,000 range. The latter would explain the low amount of individual BIA grants in the Minneapolis Area. Since BIA assistance is intended to supplement other sources of support.

Interestingly while only 25.2% of the respondents received any parental support, the most recent Office of Education statistics[2] indicate that 55% of the national college population received financial assistance from their parents.

10. What Is The Source or Sources Of The non-BIA Support?

The main source of non-BIA support for Full Bloods was Tribal Aid ($Chi^2$ 170). 74.8% of the students checking this item were Full Bloods. In contrast, non-Full Bloods indicated several sources. 62.7% of those indicating Part-Time Job, 62.2% of those indicating NDSL and 61% of those indicating "Other" were non-Full Bloods. It could be hypothesized that non-Full Bloods are more aware of outside sources of financial support than Full Bloods.

A comparison by Age group disclosed that 20 year olds and younger were significantly more apt to utilize College Scholarships ($Chi^2$ 14.8) and Tribal Aid ($Chi^2$ 6.7%) while 21 year olds and older utilized NDSL ($Chi^2$ 10.9%) and "Other" ($Chi^2$ 26.3%).

The chart below points up some important and statistically significant differences between the five areas:

TABLE II SOURCES OF NON-BIA SUPPORT BY AREA

| | JUNEAU | | | MINN. | | | MUSKOGEE | | | NAVAJO | | | PHOENIX | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CATEGORIES | NO.* | % | $Chi^2$ | NO. | % | $Chi^2$ | NO. | % | $Chi^2$ | NO. | % | $Chi^2$ | NO. | % | $Chi^2$ | SAMPLE |
| CHURCH Schl. | 23 | (16.9) | N.S. | 42 | (11.7) | NS | 68 | (15.8) | NS | 42 | (11.7) | NS | 25 | (15.5) | NS | 14% |
| STATE Schl. | 15 | (11.1) | 11.0 | 55 | (15.4) | 100 | 4 | ( .9) | 15.4 | 9 | ( 1.7) | 11.4 | 2 | ( 1.2) | NS | 5% |
| TRIBAL AID | 2 | ( 1.4) | 22.1 | 8 | ( 2.2) | 58.0 | 5 | ( 1.1) | 85 | 168 | (15.7) | 125 | 47 | (29.1) | 19.3 | 16% |
| COLLEGE Schl. | 16 | (11.7) | N.S. | 34 | ( 9.5) | NS | 16 | ( 3.7) | 12.7 | 57 | (11.2) | 7.1 | 12 | ( 7.4) | NS | 8% |
| PART-TIME JOB | 40 | (29.4) | 11.9 | 68 | (19.1) | NS | 89 | (20.7) | NS | 68 | (13.4) | 8.3 | 25 | (15.5) | NS | 18% |
| EOG | 19 | (13.9) | NS | 47 | (13.2) | NS | 22 | ( 5.1) | 46.3 | 106 | (20.9) | 8.6 | 48 | (29.8) | 21.2 | 16% |
| NDSL | 12 | ( 8.8) | NS | 32 | ( 8.9) | NS | 108 | (25.1) | 95.1 | 32 | ( 8.9) | NS | 5 | ( 3.1) | 10.6 | 11% |
| WORK STUDY | 6 | ( 4.4) | NS | 24 | ( 6.7) | NS | 40 | ( 9.3) | 11.5 | 24 | ( 6.7) | NS | 6 | ( 3.7) | NS | 6% |
| OTHER | 32 | (23.5) | NS | 114 | (32 ) | 10.3 | 128 | (29.8) | NS | 84 | (16.5) | 23 | 29 | (18 ) | NS | 25% |
| | | | | | | | | | | | | | | | | 100% |

* These figures indicate the number of students checking a given category.

2. Ibid. p 78.

Students from the Juneau Area indicated Part-Time Job, and State Scholarships as non-BIA Sources of Support in significantly higher numbers and Tribal Aid in lower numbers than statistically anticipated. As can be seen, students from Minneapolis relied heavily on State Scholarships and were much less apt to receive Tribal Aid than statistically expected. In the Muskogee Area, the picture was different with heavy reliance on NDSL and Work Study as non-BIA sources of aid. Students from the Navajo and Phoenix Areas, on the other hand, indicated heavier utilization than statistically anticipated on Tribal Aid and EOGS.

11. Estimated Annual Income of Parents

There were no significant differences between college classification or between Areas except for the Muskogee and Navajo Areas. More respondents from the Muskogee Area estimated parental income in the $3,001 - $5,000 range (25%) than statistically expected. In contrast, more respondents from the Navajo Area estimated parental income of $2,000 or less (38%).

Age was significant with 62.5% of those estimating $2,000 or less falling in the 21 and older category.

An analysis by Blood Quantum indicated significantly more Full Bloods than others estimating parental income of $3,000 or less. Of the 861 respondents in this category 64.4% were Full Bloods.

Given the above information it is not surprising that 75% of the respondents receive no financial assistance from their parents. Again comparing the BIA population with the national average it was found that whereas 5.3% of the nationwide students estimate parental income at $4,000 or less[3], 34% of the BIA sample estimated parental income at $3,000 or less.

12. Most Difficult College Expense to Meet

Here there were significant differences between categories in all four variables. An analysis by age indicated that more seniors than statistically expected mentioned Family Responsibilities. Those in the 20 and under category ranked Social Life first, Transportation second and Room and Board third. The older age group ranked Social Life fourth.

Comparing seniors with freshmen it was found that more seniors than statistically expected indicated Family Responsibilities as their hardest expense to meet (39.1%). Room and Board (21.6%) was second and Social Life (11.7%) third for seniors. Freshmen, on the other hand, rated Transportation first (21.6%), Social Life second (20.6%) and Family Responsibilities third (17.3%).

3. Ibid. p 78.

Again while Family Responsibilities was the most frequently checked item, significantly more non-Full Bloods than expected checked this item. Room and Board was also selected by significantly more non-Full Bloods and ranked second for them. Full Bloods gave almost equal weight to Family Responsibilities and Social Life as the hardest cost to meet, although more indicated Social Life than statistically expected. Transportation was rated third by Full Bloods. These four items accounted for 74.8% of the total sample responses.

Significantly more students from the Juneau and Navajo Areas indicated Transportation and Social Life as the hardest costs to meet. Fewer from these areas than statistically expected indicated Family Responsibilities. The exact reverse was true of the Minneapolis Area where one-third of the respondents indicated Family Responsibilities as the hardest cost to meet and fewer than expected noted Transportation or Social Life.

13. How Well has the BIA Higher Education Program at your Agency or Area Office handled your Grant?

44% of the total respondents replied "Very efficiently" and 38% said "Average efficiency", only 8% said "Unsatisfactory." More twenty-one year olds and older than statistically expected said "Unsatisfactorily" (9%). However, there was no significant difference between Freshmen and Seniors. Comparing the responses of Full Bloods with Others, it was found that 50% of the former said "Average efficiency" while 59% of the latter said "Very efficiently." The only significant difference between areas was that fewer respondents from Navajo considered the handling "Very efficient" (31.5%) and more than statistically expected replied "Average (45.5%) or "Not Very Efficiently" (15.4%).

14. Did Your Parents Encourage or Want You to Attend College?

Here differences in Age and College Classification were not significant. However, there was a significant difference in responses from Full Bloods and non-Full Bloods with 74.9% of the former answering Yes (945 of 1,261) and 79.9% (1,151 of 1,440) of the latter answering Yes.

The breakdown by the five areas was as follows:

TABLE III PARENTAL ENCOURAGEMENT TO ATTEND COLLEGE BY AREA

| AREA | YES | | NO | | INDIF. | | TOTAL | | $Chi^2$ |
|---|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % | |
| JUNEAU | 85 | (63.5) | 13 | (9.7) | 36 | (26.8) | 134 | (100) | 16.6 |
| MINNEAPOLIS | 253 | (72.2) | 24 | (6.8) | 73 | (20.8) | 350 | (100) | N.S. |
| MUSKOGEE | 361 | (85.2) | 13 | (3.1) | 50 | (11.7) | 424 | (100) | 18.2 |
| NAVAJO | 374 | (73.8) | 47 | (9.3) | 85 | (16.9) | 506 | (100) | 8.4 |
| PHOENIX | 127 | (78.8) | 10 | (6.2) | 24 | (14.9) | 161 | (100) | N.S. |

An analysis of the above data indicates that students from the Juneau Area received less parental encouragement and more indifference than statistically expected. Students from the Navajo Area also received less parental encouragement. In contrast, students from the Muskogee Area received more parental encouragement. Responses from the total sample broke down thusly: Yes - 77%, NO - 7%, Indifferent - 16%. It is worth noting that 23% of the students either received no encouragement or an indifferent attitude from their parents regarding pursuing higher education.

15. Father's Educational Level

Once again the significant differences were between Areas and Blood Quantum rather than Age or College Classification. 89.1% of those indicating "None" were Full Bloods.

The breakdown by Areas was as follows:

TABLE IV FATHER'S EDUCATIONAL LEVEL BY AREA

| AREA | NONE % | ELEM. % | H.S. % | TRADE BUSINESS % | COLLEGE GRAD % | TOTAL % | $Chi^2$ |
|---|---|---|---|---|---|---|---|
| JUNEAU | 22 (16.6) | 74 (56.1) | 25(18.9) | 8 ( 6.1) | 3 ( 2.3) | 132 (100) | 47.2 |
| MINNEAPOLIS | 7 ( 2.1) | 140 (42 ) | 121(36.3) | 37 (11.1) | 28 ( 8.5) | 333 (100) | 28.8 |
| MUSKOGEE | 15 ( 3.4) | 150 (35.6) | 155(36.9) | 47 (11.3) | 52 (12.4) | 419 (100) | 33.6 |
| NAVAJO | 166 (33.5) | 158 (31.9) | 123(24.7) | 32 ( 6.5) | 17 ( 3.4) | 496 (100) | 409.4 |
| PHOENIX | 11 ( 7 ) | 53 (34.1) | 72(46.4) | 14 ( 9 ) | 5 ( 3.2) | 155 (100) | N.S. |
| TOTAL SAMPLE | 9% | 35% | 36% | 12% | 8% | | |

As can be seen students from the Juneau and Navajo Areas were significantly more apt to indicate "None" - 16.6% and 33.5% respectively. 72.7% of the students from the Juneau Area and 65.4% of the students from the Navajo Area responded Elementary School or less. In contrast, fathers of students from the Muskogee and Minneapolis Areas were more apt to have received post-High School or College training. While we do not have nation-wide figures that are exactly comparable, we do have figures for "first time students."

The following table illustrates the nation-wide breakdown for students as of Fall of 1971[4], as compared with the total BIA Sample.

TABLE V FATHER'S EDUCATIONAL LEVEL

| | Nation-Wide | BIA |
|---|---|---|
| Elementary Education or less | 8.8% | 44% |
| Some High School | 15.8 } | 36% |
| High School Graduate | 30.9 } | |
| Some College | 16.9 | |
| College Degree | 18.4 | 8% |
| Post-graduate | 9.3 | |

The wide disparity between the B.I.A. supported students and the national student average is obvious.

4. Ibid p. 78.

16. Mother's Educational Level

Responses to this question basically followed the same pattern as those to Father's Educational Level. Age and College Classification produced no significant differences. Once again a very high percentage, 99.3% of those indicating "None" were Full Bloods.

Responses by Area were as follows:

TABLE VI MOTHER'S EDUCATIONAL LEVEL BY AREA

| AREA | NONE NO. | % | ELEM. NO. | % | H.S. NO. | % | T/B NO. | % | C. GRAD NO. | % | TOTAL NO. | % | $Chi^2$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JUNEAU | 23 | (17 ) | 80 | (59.3) | 23 | (19.3) | 0 | | 6 | (4.4) | 135 | (100) | 95.6 |
| MINNEAPOLIS | 2 | ( .5) | 81 | (23.7) | 193 | (56.3) | 33 | ( 9.6) | 34 | (9.9) | 343 | (100) | 59.4 |
| MUSKOGEE | 6 | ( 1.4) | 120 | (28.3) | 213 | (50.3) | 52 | (12.3) | 33 | (7.7) | 424 | (100) | 47.7 |
| NAVAJO | 216 | (42.9) | 128 | (25.5) | 124 | (24.6) | 23 | ( 4.6) | 12 | (2.4) | 503 | (100) | 679.9 |
| PHOENIX | 17 | (10.6) | 51 | (31.8) | 77 | (48.1) | 12 | ( 7.5) | 3 | (1.8) | 160 | (100) | N.S. |
| TOTAL SAMPLE | | 11% | | 29% | | 45% | | 11% | | 6% | | (100) | |

Here again the educational level of mothers of students from the Juneau and Navajo Areas was significantly lower than that of students from other areas. Minneapolis and Muskogee had significantly more College graduates. It appears that, with the exception of the Navajo Area, students' mothers are more apt to have completed High School or above than their fathers. Unfortunately, there were no comparable figures for the national population.

17. Percentage of Students Who Attended BIA High Schools

As expected, significantly more Full Bloods than non-Full Bloods attended B.I.A. High Schools ($Chi^2$ - 92.19). Age and College Classification proved not to be significant. The Areas broke down as follows:

TABLE VII NUMBER OF STUDENTS WHO ATTENDED BIA HIGH SCHOOLS BY AREA

| AREA | YES NO. | % | NO NO. | % | TOTAL NO. | % | $Chi^2$ |
|---|---|---|---|---|---|---|---|
| JUNEAU | 50 | (37.3) | 84 | (62.7) | 134 | (100) | 45.5 |
| MINNEAPOLIS | 14 | ( 3.9) | 342 | (96.1) | 356 | (100) | 43.7 |
| MUSKOGEE | 48 | (11.2) | 378 | (88.8) | 426 | (100) | 8.2 |
| NAVAJO | 107 | (21.5) | 396 | (78.5) | 503 | (100) | 11.9 |
| PHOENIX | 37 | (23.2) | 122 | (76.8) | 159 | (100) | N.S. |
| TOTAL SAMPLE | | 16% | | 84% | | (100) | |

Fewer students from Minneapolis and Muskogee than statistically anticipated attended B.I.A. High Schools while more students from Juneau and Navajo attended these schools.

18. Percentage of Students Who Attended BIA Elementary Schools

The breakdown of responses to this question closely paralleled those of the preceeding question. Significantly more Full Bloods than others attended BIA Schools ($Chi^2$ 185.6). Once again more students from the Navajo and Juneau Areas attended B.I.A. schools than statistically expected and fewer students from the Minneapolis and Muskogee Areas attended BIA schools. The breakdown was:

TABLE VIII NUMBER OF STUDENTS WHO ATTENDED BIA ELEMENTARY SCHOOLS BY AREA

| | YES | | NO | | TOTAL | | |
|---|---|---|---|---|---|---|---|
| AREA | NO. | % | NO. | % | NO. | % | $Chi^2$ |
| JUNEAU | 64 | (47.4) | 71 | (52.6) | 135 | (100) | 80.5 |
| MINNEAPOLIS | 23 | ( 6.4) | 332 | (93.6) | 355 | (100) | 36.2 |
| MUSKOGEE | 20 | ( 4.7) | 404 | (95.3) | 424 | (100) | 59.5 |
| NAVAJO | 200 | (40.0) | 299 | (60.0) | 499 | (100) | 198.6 |
| PHOENIX | 36 | (22.7) | 122 | (77.2) | 158 | (100) | N.S. |
| | | 18% | | 82% | | 100 | |

Responses to the above two questions would seem to verify the idea that B.I.A. Schools deal with the less acculturated, more traditional Indian populations.

19. Father's Occupation

Age and College Classification proved to be not significant. However, more Full Bloods than statistically expected indicated their fathers were "Farmers, Sheepherders, Ranchers", worked in "Services" or were "Unskilled." A breakdown by Areas revealed significant differences:

TABLE IX FATHER'S OCCUPATION BY AREA

| AREA | PROFESSIONAL MGMT. SEMI SKILLED | % | SALES | % | FARMER SHEEP-HERDER | % | SER-VICE | % | UN-SKILLED | % | TOTAL | % | $Chi^2$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NO. | | NO. | | NO. | | NO. | | NO. | | NO. | | |
| JUNEAU | 42 | (39.6) | 1 | ( .9) | 5 | ( 4.7) | 12 | (11.4) | 46 | (43.4) | 106 | (100) | 19.0 |
| MINNEAPOLIS | 144 | (50.7) | 3 | (1 ) | 14 | ( 4.9) | 23 | ( 8.1) | 100 | (35.3) | 284 | (100) | 34.7 |
| MUSKOGEE | 176 | (48.8) | 7 | (1.9) | 39 | (10.8) | 39 | (10.8) | 99 | (27.5) | 360 | (100) | N.S. |
| NAVAJO | 138 | (31.4) | 8 | (1.8) | 119 | (27.2) | 60 | (13.7) | 114 | (25.9) | 439 | (100) | 87.2 |
| PHOENIX | 47 | (34 ) | 1 | ( .7) | 20 | (14.4) | 26 | (18.8) | 44 | (31.8) | 138 | (100) | N.S |
| TOTAL SAMPLE | | 43% | | 1% | | 15% | | 13% | | 27% | | | |

Fewer students than statistically expected from the Juneau and Navajo Areas indicated their fathers were in the professions or in managerial or semi-skilled jobs. In contrast more of the students from the Navajo Area indicated "Farmers, Sheepherders etc." and more from the Juneau Area indicated "Unskilled."

Unfortunately there were no figures available for the national average which were exactly comparable.

20. How Was High School Certificate Obtained?

There were no significant differences by Age or Blood Quantum. However, significantly more Freshmen (8.9%) received G.E.D.s than statistically anticipated. In addition, more students from Minneapolis received G.E.Ds while fewer students from Navajo received G.E.D's than statistically expected as the breakdown below indicates.

TABLE X METHOD OF OBTAINING HIGH SCHOOL CERTIFICATE BY AREA

| AREA | H.S. GRAD NO. | % | G.E.D. NO. | % | NEVER COMPLETED NO. | % | TOTAL NO. | % | $Chi^2$ |
|---|---|---|---|---|---|---|---|---|---|
| JUNEAU | 124 | (93.9) | 6 | (4.5) | 2 | (1.5) | 132 | (100) | N.S. |
| MINNEAPOLIS | 301 | (87 ) | 38 | (11 ) | 7 | (2 ) | 346 | (100) | 11.8 |
| MUSKOGEE | 396 | (92.7) | 25 | ( 5.8) | 6 | (1.4) | 427 | (100) | N.S. |
| NAVAJO | 489 | (97.7) | 8 | ( 1.6) | 3 | ( .6) | 500 | (100) | 30.7 |
| PHOENIX | 142 | (92.2) | 6 | ( 3.8) | 6 | (3.8) | 154 | (100) | N.S. |
| TOTAL SAMPLE | | 91% | | 8% | | 1% | | (100) | |

21. What Degree Are You Working Toward?

Although 46.9% of the sample were Full Bloods, a disproportionately high percentage of the Full Bloods indicated they were working toward Associate of Arts Degrees rather than B.As, B.Ss, or advanced degrees. When the Areas were compared, significantly more students from the Phoenix and Navajo Areas indicated they were working on A.A. degrees.

In addition more students from the Navajo and Muskogee Areas were working toward the B.S. degree. The Area breakdown was as follows:

TABLE XI NUMBER OF STUDENTS BY DEGREE WORKING TOWARD AND AREA

| AREA | AA NO. | % | BA NO. | % | BS NO. | % | BUS AD NO. | % | MA NO. | % | M ED. NO. | % | LLB NO. | % | PHD NO. | % | OTHER NO. | % | TOTAL | $Chi^2$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JUNEAU | 12( | 8.8) | 59(46.8) | | 18 | (14.2) | 11(8.7) | | 2 | (1.5) | 3(2.3) | | 2(1.5) | | 1(1.5) | | 18(14.2) | | 126 | NS |
| MINNEAPOLIS | 33( | 9.8) | 115(34.3) | | 86 | (25.6) | 17(5 ) | | 9 | (2.6) | 9(2.6) | | 4(1.1) | | 7(2 ) | | 55(16.4) | | 335 | NS |
| MUSKOGEE | 29( | 6.9) | 133(31.8) | | 138 | (33 ) | 29(6.9) | | 11 | (2.7) | 20(4.8) | | 8(1.9) | | 9(2.2) | | 41( | 9.8) | 418 | 29.0 |
| NAVAJO | 81(16.4) | | 154(31.2) | | 157 | (31.8) | 31(6.3) | | 10 | (2.1) | 14(2.8) | | 5(1 ) | | 2( | .4) | 40( | 8. ) | 495 | 20.1 |
| PHOENIX | 36(24 ) | | 38(25.3) | | 47 | (31.3) | 10(6.6) | | 1 | ( .6) | 3(2 ) | | 3(2 ) | | 2(1.3) | | 10( | 6.6) | 150 | 25.4 |
| TOTAL SAMPLE | | (12%) | | (34%) | | (38%) | | (7%) | | (2%) | | (3%) | | (1%) | | (1%) | | (12%) | | |

While exactly comparable figures for national norms are not available, it is worth noting that, of the Freshmen enrolled in College in Fall 1971[5], 19.9% planned on degrees higher than the MA/MS, 25.9% planned on the MA/MS and 10.2% planned on the A.A. degree - a marked contrast to the B.I.A. population.

5. Ibid. p. 79

22. Do You Attend a Public or Private Institution?

The total sample broke down as follows: 80% Public, 20% Private. A significantly higher percentage of Full Bloods and twenty-year olds and under indicated they were attending Private Schools. This was also true of students from the Juneau and Navajo Areas. In contrast, more students from the Muskogee Area than statistically anticipated indicated that they attended public schools.

The Area breakdown was as follows:

TABLE XII NUMBER OF STUDENTS BY TYPE OF INSTITUTION ATTENDED AND AREA

| | PUBLIC | | PRIVATE | | TOTAL | | |
|---|---|---|---|---|---|---|---|
| AREA | NO. | % | NO. | % | NO. | % | $Chi^2$ |
| JUNEAU | 84 | (66.1) | 43 | (33.9) | 127 | (100) | 13.8 |
| MINNEAPOLIS | 285 | (83 ) | 58 | (17 ) | 343 | (100) | N.S. |
| MUSKOGEE | 376 | (88.4) | 49 | (11.3) | 425 | (100) | 24.1 |
| NAVAJO | 348 | (70.8) | 143 | (29.2) | 491 | (100) | 27.1 |
| PHOENIX | 130 | (82.2) | 28 | (17.8) | 158 | (100) | N.S. |
| TOTAL SAMPLE | | (80% ) | | (20% ) | | (100) | |

National norms indicated 61.4% of the students attended Public Colleges or Universities while 38.6% attended private institutions.

23. Do You Live On or Off Campus?

Significantly more Full Bloods and twenty-year olds and younger live ON Campus. ($Chi^2$ 120.5 and 403 respectively.) 51.5% of the Full Bloods as opposed to 30.6% of the non-Full Bloods live ON Campus. For the total sample the percentages were 40% ON and 60% OFF. A breakdown by Areas showed statistically more ON Campus students from the Juneau and Navajo Areas and more OFF Campus students from the Minneapolis Area. The figures by Area were:

TABLE XIII NUMBER OF STUDENTS BY PLACE OF RESIDENCE AND AREA

| | ON | | OFF | | TOTAL | | |
|---|---|---|---|---|---|---|---|
| AREA | NO. | % | NO. | % | NO. | % | $Chi^2$ |
| JUNEAU | 84 | (64.6) | 46 | (35.4) | 130 | (100) | 32.2 |
| MINNEAPOLIS | 85 | (24.6) | 260 | (75.4) | 345 | (100) | 40.1 |
| MUSKOGEE | 149 | (35.3) | 273 | (64.7) | 422 | (100) | N.S. |
| NAVAJO | 313 | (62.5) | 188 | (37.5) | 501 | (100) | 123.5 |
| PHOENIX | 72 | (45.8) | 85 | (54.2) | 157 | (100) | N.S. |

24. Number of Other Indians Attending Your College or University

Significantly more Seniors (69%) than Freshmen (56%) indicated there were twenty-five or more Indians at their schools. The same pattern held true for Full Bloods (50.6%) versus non-Full Bloods. The total sample broke down as

follows: 12% "Very Few", 13% "Few", 61% "Twenty-five or more", 4% "I am virtually the only known Indian enrolled", 10% "Do not know." An analysis by Area reveals a more complex pattern. Whereas 39.7% of the students from the Minneapolis Area replied "Very Few", "Few" or "Virtually the only known Indian", 74.6% of the students from the Juneau Area and 74.8% of the students from the Navajo Area indicated there were 25 or more Indian students on campus. Although a slightly higher percentage of the students from the Phoenix Area (67.7%) than from the Muskogee Area (65.1%) checked "25 or more", the $Chi^2$ analysis proved insignificent for Phoenix, but significant for Muskogee. The breakdown was as follows:

TABLE XIV NUMBER OF STUDENTS BY NUMBER OF OTHER INDIAN STUDENTS ON CAMPUS AND AREA

| AREA | VERY FEW NO. | (%) | FEW NO. | (%) | 25+ NO. | (%) | ONLY ONE NO. | (%) | DON'T KNOW NO. | (%) | TOTAL NO. | (%) | $Chi^2$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JUNEAU | 6 | ( 4.5) | 8 | ( 6. ) | 98 | (74.6) | 1 | ( .7) | 20 | (16 ) | 133 | (100) | 22.1 |
| MINNEAPOLIS | 59 | (17.2) | 54 | (15.8) | 164 | (47.8) | 23 | (6.7) | 43 | (12.5) | 343 | (100) | 32.7 |
| MUSKOGEE | 36 | ( 8.5) | 55 | (12.9) | 277 | (65.1) | 8 | (1.8) | 50 | (11.7) | 426 | (100) | 13.4 |
| NAVAJO | 49 | ( 9.8) | 40 | (8 ) | 375 | (74.8) | 9 | (1.8) | 28 | ( 5.6) | 501 | (100) | 53.1 |
| PHOENIX | 21 | (13.2) | 15 | ( 9.4) | 107 | (67.7) | 4 | (2.5) | 11 | ( 6.9) | 158 | (100) | N.S. |

25. Are You Enrolled as a Full-Time Student?

89% of the total sample replied "Yes". Age, College Classification and Blood Quantum were not significant variables. Area, too, with the exception of Navajo, proved not significant. 93.2% of the students from the Navajo Area indicated they were Full-time Students. This was a higher percentage than statistically expected.

26. How Many Credits are you Taking at the Present Time?

84% of the total sample are enrolled in semester hours rather than quarter hours. The only significant differences appeared in a comparison of Area Offices where more students from the Muskogee and Navajo Areas indicated they were taking 13 or more semester hours, more students from the Juneau Area were taking 9-12 semester hours and fewer students from the Minneapolis Area than statistically expected were taking 13-15 semester hours. The breakdown was as follows:

TABLE XV NUMBER OF STUDENTS BY AREA AND CREDIT HOURS TAKEN

| | Semester Hours | | | | | | | Quarter Hours | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AREA | 8 Hrs. or Less N | (%) | 9-12 N | (%) | 13/15 N | (%) | 16 or MORE N | (%) | 8 HRS. or Less N | (%) | 9/12 N | (%) | 13/15 N | (%) | 16 or More N | (%) | TOTAL | $Chi^2$ |
| JUNEAU | 3 | ( 2.6) | 45 | (38.2) | 46 | (38.9) | 18 | (15.3) | 0 | | 0 | | 2 | (1.6) | 4 | (3.3) | 118 | 30.6 |
| MINNEAPOLIS | 15 | ( 4.8) | 71 | (22.3) | 94 | (29.5) | 51 | (15.9) | 1 | (.3) | 15 | (4.7) | 27 | (8.4) | 45 | (14.1) | 319 | 41.4 |
| MUSKOGEE | 21 | ( 5.1) | 64 | (15.6) | 201 | (49.2) | 95 | (23.2) | 1 | (.2) | 1 | ( .2) | 4 | ( .9) | 21 | ( 5.1) | 408 | 61.4 |
| NAVAJO | 12 | (25.0) | 90 | (18.6) | 199 | (40.9) | 121 | (24.9) | 0 | | 2 | ( .4) | 28 | (5.8) | 34 | (6.9) | 486 | 26.4 |
| PHOENIX | 7 | ( 4.5) | 44 | (28.3) | 64 | (41.2) | 19 | (12.2) | 0 | | 10 | (6.4) | 10 | (6.4) | 11 | (7.0) | 155 | N.S. |
| TOTAL SAMPLE | | ( 4%) | | (21%) | | (39%) | | (20%) | | (2%) | | (2.0%) | | (6.0%) | | (8.0%) | | |

27. What Is Your College Major?

Here Age and Blood Quantum proved to be not significant. However, there were signfificant differences between Freshmen and Seniors in that more Seniors than expected majored in Art while fewer Freshmen majored in Education. When the responses were analyzed by Areas the only significant difference was that more students from the Navajo Area and fewer from the Minneapolis Area were majoring in Education - 28.7% and 17% respectively. 22% of the total sample indicated they were majoring in Education.

28. Does Your College or University Offer Counseling Specifically For Indian Students?

While Age and College Classification were not significant, statistically more Full Bloods than expected indicated that this counseling was available on their campus. This would seem to correlate with the fact that Full Bloods are more apt to attend colleges where there are 25 or more Indians. Responses by Areas indicated that more students from the Juneau, Muskogee and Navajo Areas attended colleges where such special counseling was provided whereas fewer students from the Minneapolis Area said this service was provided. The breakdown was as follows:

TABLE XVI NUMBER OF STUDENTS ATTENDING COLLEGES OFFERING COUNSELING SPECIFICALLY FOR INDIAN STUDENTS

| | YES | | NO | | | |
|---|---|---|---|---|---|---|
| AREA | N | (%) | N | (%) | TOTAL | $Chi^2$ |
| JUNEAU | 107 | (81.6) | 24 | (18.4) | 131 | 9.8 |
| MINNEAPOLIS | 201 | (59.6) | 136 | (40.4) | 337 | 14.9 |
| MUSKOGEE | 338 | (80.4) | 82 | (19.6) | 420 | 30.4 |
| NAVAJO | 386 | (75.5) | 112 | (24.5) | 498 | 20.6 |
| PHOENIX | 112 | (71.7) | 44 | (28.2) | 156 | N.S. |

29. Do You Take Advantage of the General Counseling Services of the College?

As might be expected, younger students and freshmen were more apt to reply in the affirmative than were the twenty-one year olds and seniors who tend to have been in school longer. While there was no significant difference between Full Bloods and non-Full Bloods, more students from the Muskogee Area and fewer from the Phoenix Area than statistically expected utilized the general Counseling Services.

30. Do You Now or Have You ever Participated in One of the Following Programs?

Freshmen and students twenty years old and younger participated in Freshman Orientation at twice the frequency of Seniors and twenty-one year olds and older. On the other hand the latter two groups attended Summer School at more than twice the frequency of the former groups. Full Bloods were statistically more apt to participate in Indian Studies and to belong to an Indian Club while non-Full Bloods were more apt to utilize Indian Counseling Services, Attend, Freshman

Orientation and attend Summer School. Differences between Areas were not significant except in the case of the Minneapolis Area where more students than statistically expected participated in Indian Studies (21.3%) and attended Freshman Orientation (39.4%). Interestingly enough fewer students from the Minneapolis Area belonged to an Indian Club (11.2%) or attended Summer School (15.8%) .

31. Do You Own and Operate An Automobile?

Significantly more twenty-one year olds and older ($Chi^2$ 302.9) and Seniors ($Chi^2$ 115.2) owned cars. More non-Full Bloods than Full Bloods owned cars ($Chi^2$ 109.6). 32.3% of the 1,258 Full Bloods owned cars as opposed to 60.6% of the 1,441 non-Full Bloods. An analysis by areas revealed that significantly more students from the Muskogee Area (69.9%) owned cars. In contrast, fewer students from the Juneau (25.1%), Navajo (32%) and Phoenix Areas (38.3%) owned cars than statistically expected.

Below is the breakdown by Area:

TABLE XVII NUMBER OF STUDENTS OWNING CARS

| | YES | | NO | | TOTAL | | |
|---|---|---|---|---|---|---|---|
| AREA | NO. | (%) | NO. | (%) | NO. | (%) | $Chi^2$ |
| JUNEAU | 34 | (25.1) | 101 | (74.9) | 135 | (100) | 37.4 |
| MINNEAPOLIS | 179 | (50.7) | 174 | (49.2) | 353 | (100) | N.S. |
| MUSKOGEE | 292 | (69.1) | 131 | (30.9) | 423 | (100) | 62.9 |
| NAVAJO | 160 | (32 ) | 339 | (68 ) | 499 | (100) | 88.8 |
| PHOENIX | 61 | (38.3) | 98 | (61.7) | 159 | (100) | 10.6 |
| TOTAL SAMPLE | | (51% ) | | (49% ) | | (100%) | |

32. What Do You Believe To Be Your Biggest Problem In College?

For the total sample the biggest problems were "Poor Study Habits" (26%), "Lack of High School Preparation" (23%), "Lack of Motivation To Study" (18%), and "Lack of Finance" (15%).

When Seniors and Freshmen were compared, no significant differences were found. Interestingly, there was a significant difference between Age groups with more 21 year olds and over indicating "Lack of High School Preparation" (26.3%) and fewer in this age group indicating "Lack of Motivation" (14.9%). There were no significant differences between areas except for the Navajo Area where a disproportionately high percentage, 23%, of the students indicated "Lack of Motivation" as their biggest problem.

The most significant difference between Full Bloods and non-Full Bloods was in the number of students indicating "Lack of Financial Support". Of the students checking this item, 62.4% were non-Full Bloods, 37.6% were Full Bloods. It could be hypothesized that the more acculturated, less reservation-oriented students have been more exposed to city and town life and, therefore, know of more ways to spend money (have greater "felt needs"?). A second difference occurred in the number of students indicating "Lack of High School Preparation" with 55.1% of the respondents being non-Full Bloods. The least checked items-

both for the sample as a whole as well as for the four variables analyzed - were "Homesickness" and "Poor English Skills". There appeared to be no significant differences among the variables with regard to these two items.

33. Plans After Graduation

The category most selected by the student sample as a whole was "Work among and for Indian People on any reservation or in any place where the need exists" - 32.6%. There was no statistically significant difference between Full Bloods and non-Full Bloods on this item although this was the first choice for Full Bloods and second choice for non-Full Bloods. Comparing College Classification it was found that more Freshmen (33.6%) and 21 year olds and older (32.6%) chose this category than statistically expected.

The second largest category selected for the sample was "Work where I can get the best Job". Freshmen (27.8%) and twenty-year olds and younger (25.3%) checked this category in significantly higher numbers than statistically expected.

Differences between areas were highly significant as can be seen from the following:

TABLE XVIII PLANS AFTER COLLEGE GRADUATION

| CATEGORIES | JUNEAU NO. | JUNEAU (%) | MINN. NO. | MINN. (%) | MUSK. NO. | MUSK. (%) | NAVAJO NO. | NAVAJO (%) | PHOENIX NO. | PHOENIX (%) |
|---|---|---|---|---|---|---|---|---|---|---|
| Work among and for Indian people anywhere there is a need..... | 35 | (27.2) | 116 | (35 ) | 127 | (30 ) | 142 | (29.2) | 57 | (37.7) |
| Work only among my own Tribal people..... | 16 | (12.5) | 8 | ( 2.4) | 3 | ( .7) | 70 | (14.4) | 6 | ( 3.9) |
| Return to the reservation to work..... | 4 | ( 3.2) | 3 | ( .9) | 0 | ( 0) | 72 | (14.8) | 18 | (11.9) |
| Stay in College environment and join the academic community..... | 3 | ( 2.3) | 8 | ( 2.4) | 20 | ( 4.7) | 5 | (1.0) | 2 | ( 1.3) |
| May return to reservation or take a job off it, depending on the situation..... | 9 | ( 6.9) | 40 | (12 ) | 6 | ( 1.4) | 95 | (19.5) | 34 | (22.5) |
| Work where I can get the best job..... | 37 | (28.6) | 102 | (30.9) | 187 | (44.3) | 59 | (12.1) | 23 | (15.2) |
| Other..... | 25 | (19.3) | 54 | (16.4) | 80 | (18.9) | 44 | ( 9 ) | 11 | ( 7.2) |
| Total..... | 129 | (100%) | 331 | (100%) | 423 | (100%) | 487 | (100%) | 151 | (100%) |
| $Chi^2$ ..... | | 17.7 | | 26.6 | | 186.6 | | 258.6 | | 40.5 |

A significantly higher percentage of students than statistically expected from the Juneau and Navajo Areas indicated that they planned to work only "Among their own tribal people", whereas a higher percentage of students from the Phoenix Area indicated that they planned to work "Among and for Indian People anywhere". It should be pointed out, however, that more students from the Juneau Area than statistically expected also responded that they would work anywhere among and for Indian people.

It can be seen that a high percentage of students from Juneau, Minneapolis and Muskogee indicated that they expected to work where they could get the best job. Interestingly enough, students from Navajo and Phoenix, the areas with the highest percentage of Full Bloods, indicated significantly less interest in working where they could get the best job. These same students did leave open the option of working on or off the reservation "depending on the situation" (Item 5). Their responses to this item were higher than statistically expected.

34. What Do You Feel To Be The Major Strength of the BIA Higher Education Program?

By far the item most checked was Item 1 "Produces scholarship assistance for as many Indian college students as possible" (72% of the total sample). Significantly more non-Full Bloods (74.9%) than Full Bloods (67.6%) checked this item. This was also true of Seniors (78.5%) compared with Freshmen (69.9%) and 21 year olds (56.2%) compared with those twenty and younger (43.8%).

The second most frequently checked item was Item 2 "Assists Indian students in locating other sources of support for purposes of attending college" (8%). Of the 212 students checking this item 64.6% were Full Bloods compared with35.4% non-Full Bloods. 9.7% of the Freshmen and 6.3% of the Seniors checked this item. A comparison by Areas revealed the following:

TABLE XIX MAJOR STRENGTH OF BIA HIGHER EDUCATION PROGRAM BY NUMBER OF STUDENTS AND AREA

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | | |
|---|---|---|---|---|---|---|---|---|---|
| AREA | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | N (%) | TOTAL | Chi² |
| JUNEAU | 84 (66.1) | 7 ( 5.5) | 8 ( 6.2) | 9 ( 7 ) | 4 ( 3.1) | 6 (4.7) | 9 (7 ) | 127 | N.S. |
| MINNEAPOLIS | 255 (75.8) | 17 ( 5 ) | 3 ( .8) | 16 ( 4.7) | 16 ( 4.7) | 8 (2.3) | 21 (6.2) | 336 | N.S. |
| MUSKOGEE | 320 (76.7) | 27 ( 6.4) | 12 ( 2.8) | 13 ( 3.1) | 9 ( 2.1) | 14 (3.3) | 22 (5.2) | 417 | N.S. |
| NAVAJO | 325 (66.6) | 70 (14.4) | 9 ( 1.8) | 11 ( 2.2) | 17 ( .4) | 22 (4.6) | 34 (7 ) | 488 | 246.1 |
| PHOENIX | 108 (71.5) | 20 (13.2) | 0 ( 0 ) | 2 ( 1.3) | 3 ( 1.9) | 10 (6.6) | 8 (5.2) | 151 | 17.3 |
| TOTAL SAMPLE | (72% ) | ( 8% ) | ( 2% ) | ( 4% ) | ( 3% ) | (3% ) | (8% ) | 100% | |

As can be seen, the only significant differences appear in responses from students in the Navajo and Phoenix areas. Students from the Navajo Area were more apt to check Item 2 and less apt to check Item 1 than statistically expected, while students from the Phoenix Area were more apt to check Item 2 and less apt to check Item 4 ("To assist in gaining admission to college") than statistically expected.

35. What do you Feel to be the Strength of the BIA and/or Tribal Scholarship Offices?

The items most checked in the total sample were Item 1 "Efficient handling of applications and requests for information" (33% or 830 of 2515) and Item 5 "Ease of contact" (26.6% or 669 of 2515). There were no significant differences between Full Bloods and non-Full Bloods. However, fewer Seniors (31.3%) and fewer students from the Navajo Area (29.6%) checked Item 1 than statistically expected. In addition, more students (14%) from the Navajo Area than statistically

expected indicated Item 3 'Sensitivity to student needs." The latter may reflect the fact that the Navajos themselves administer the Higher Education program. Yet it should be recalled that fewer students from the Navajo Area felt that their grants were handled "Very Efficiently"(31.5%) and more felt the handling was "Average" (45.5%) or "Not Very Efficiently" (15.4%).

36. How Did You First Learn of the BIA Higher Education Program?

Here there were some interesting and significant differences noted. While Item 2 (High School Counselor) and Item 5 (Parents) were the most frequently checked replies for the total sample, significantly more twenty-year olds and younger checked these items (29.5% and 25.1%) than statistically expected. Twenty-one year olds and older were more apt to check Item 4 (Information from the BIA Area or Agency Office - 18.7%), then Item 5 (Parents - 17.1%) and Item 1 (Friend - 14.1%).

In comparing Full Bloods with non-Full Bloods, it was found that 59% of those indicating "High School Counselor" were Full Bloods while 74% of those indicating "Parents" were non-Full Bloods. It would appear that Full Bloods must rely heavily on counselors for information on scholarships while non-Full Bloods have parents and friends who are aware of this opportunity. There were no significant differences between Seniors and Freshmen with both groups ranking Items 2 first a nd 5 second.

The breakdown by Areas again pointed up differences in sources of information. Students from the Juneau Area were more apt to rely on "High School Counselor" and "High School Teacher or Principal." Responses from the Navajo Area were similar with almost 50% of the students indicating reliance on "High School Counselor " and "College Counselor." The latter category may reflect students attending Navajo Community College. The pattern for Muskogee was quite different with heavy reliance on "Parents" and more than statistically expected on "A Friend." Students from the Minneapolis Area indicated more reliance on "Other" sources and less on "High School Counselor" than statistically expected. Again acculturation appeared to be a major factor in determining sources of information on B.I.A. scholarships. The table below indicates responses by Areas.

TABLE XX STUDENTS' SOURCES OF KNOWLEDGE OF BIA HIGHER EDUCATION PROGRAM BY AREAS

| | FRIEND NO. (%) | H.S. COUNS. NO. (%) | COLL. COUNS. NO. (%) | BIA AREA/ AGENCY NO. (%) | PARENTS NO. (%) | H.S. TEACH/ PRINC. NO. (%) | TRIBE NO. (%) | OTHER NO. (%) | TOTAL | $Chi^2$ |
|---|---|---|---|---|---|---|---|---|---|---|
| JUNEAU | 22 (17.1) | 39(30.4) | 4( 3.1) | 23(17.9) | 10( 7.9) | 18(14.1) | 2( 1.6) | 10( 7.9) | 128 | 80.4 |
| MINN. | 40 (12 ) | 62(18.6) | 27( 8.2) | 30( 9 ) | 71(21.4) | 4( 1.3) | 38(11.5) | 60(18 ) | 332 | 29.2 |
| MUSKOGEE | 54 (13.5) | 62(15.5) | 14( 3.5) | 66(16.5) | 123(30.7) | 15( 3.7) | 20( 4.9) | 47(11.7) | 401 | 56.2 |
| NAVAJO | 26 ( 5.6) | 165(35.9) | 48(10.5) | 59(12.9) | 36( 7.8) | 21( 4.6) | 42( 9.2) | 62(13.5) | 459 | 136.6 |
| PHOENIX | 17 (11.9) | 28(19.6) | 11( 7.7) | 27(18.9) | 28(19.6) | 6( 4.2) | 14( 9.8) | 12( 8.4) | 143 | N.S. |
| TOTAL SAMPLE | (11% ) | (20% ) | (6% ) | (14% ) | (19% ) | ( 3% ) | ( 9% ) | (12% ) | 94%(a) | |

(a) An additional 6% of the Total Sample checked more than two items.

37. What were the Factors that were Important in Determining the Amount of Your Scholarship.

While 21% of the total sample were unsure (Item 8"could not tell") as to which factors determined the amount of their grants, there were some statistically significant differences in other categories. More Full Bloods and Freshmen felt that the "Cost of the College I Wanted to Attend (Item 4) was an important factor whereas more non-Full Bloods felt that the "Amount of Assistance My Parents Could Provide" (Item 1) was an important factor. There were no significant differences between Age Groups.

A comparison between Areas showed that students from the Juneau and Navajo Areas were more apt to check "Cost of the College" (Item 4). In contrast, students from the Minneapolis Area felt that the "Opinion of the Scholarship Officer" (Item 5) was important and students from the Muskogee Area felt that the "Amount of Assistance My Parents Could Provide" (Item 1) was important.

TABLE XXI STUDENT PERCEPTIONS OF FACTORS IMPORTANT IN DETERMINING THE AMOUNT OF BIA GRANTS BY AREA

| | #1 NO. (%) | #2 NO. (%) | #3 NO. (%) | #4 NO. (%) | #5 NO. (%) | #6 NO. (%) | #7 NO. (%) | #8 NO. (%) | #9 NO. (%) | TOTAL | $Chi^2$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JUNEAU | 12( 9.3) | 20(15.5) | 2(1.5) | 35(27.1) | 7( 5.4) | 0( 0 ) | 2(1.6) | 27(20.9) | 24(18.7) | 129 | 20.4 |
| MINNEAPOLIS | 40(11.6) | 48(13.9) | 1( .3) | 26( 7.5) | 38(11 ) | 1(.3 ) | 26(7.6) | 65(18.9) | 99(28.8) | 344 | 39.6 |
| MUSKOGEE | 57(13.7) | 35( 8.4) | 3( .7) | 43(10.4) | 12( 2.9) | 1(.3 ) | 30(7.3) | 99(23.9) | 134(32.3) | 414 | 45.3 |
| NAVAJO | 29( 6.1) | 90(19 ) | 10(2.1) | 114(24.1) | 27( 5.7) | 0( 0 ) | 11(2.3) | 82(173 ) | 111(23.4) | 474 | 76.3 |
| PHOENIX | 18(11 ) | 18(11 ) | 0(0 ) | 25(16 ) | 16(10 ) | 0( 0 ) | 10(6 ) | 33(21 ) | 31(20 ) | 151 | NS |
| TOTAL SAMPLE | (10% ) | (13%) | (1%) | (17%) | (6%) | (.3%) | (7%) | (21%) | (25%) | | |

38. Frequency of Contact with the BIA or Tribal Scholarships Officer. (This includes visits, correspondence, or telephone calls.)

Of the total sample of 2605 students, 34% indicated "Never Hear"; another 44% said they were in contact once a semester or quarter. The remaining 22% indicated they were in contact two or three times a semester or quarter. Full Bloods and Freshmen were more apt to indicate "Never Hear" than was statistically expected ($Chi^2$ 11.9 and 20.9 respectively.) Age was not a significant factor.

A comparison by Areas revealed some interesting and statistically significant differences. Students from the Minneapolis and Navajo Areas were much more apt to check "Never" (45% and 40.5% respectively.) In contrast, students from the Muskogee Area were more apt to indicate "Two" or "Three" times a semester.

The breakdown was as follows:

TABLE XXII FREQUENCY OF STUDENT CONTACT WITH BIA/TRIBAL SCHOLARSHIP OFFICER BY AREA: FREQUENCY OF CONTACT

| AREAS | SEM/QTR. NO. | (%) | SEM/QTR NO. | (%) | SEM/QTR NO. | (%) | NEVER NO. | (%) | TOTAL NO. | (%) | $Chi^2$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JUNEAU | 58 | (45 ) | 14 | (10 ) | 9 | ( 7 ) | 47 | (36 ) | 128 | (100) | N.S. |
| MINNEAPOLIS | 131 | (39.2) | 27 | ( 8 ) | 26 | ( 7.8) | 151 | (45 ) | 335 | (100) | 25.5 |
| MUSKOGEE | 195 | (47.4) | 63 | (15.4) | 63 | (15.4) | 90 | (21.8) | 411 | (100) | 46.3 |
| NAVAJO | 212 | (44.1) | 52 | (10.7) | 23 | ( 4.7) | 196 | (40.5) | 483 | (100) | 23 |
| PHOENIX | 54 | (35 ) | 22 | (14 ) | 10 | ( 6 ) | 67 | (43 ) | 153 | (100) | N.S. |
| TOTAL SAMPLE | | (44%) | | (13%) | | (9%) | | (34%) | | 100% | |

39. Student Opinions Regarding Whether More Contact with BIA or Tribal Scholarship Officers Would Be Helpful.

While Age and College Classification were not significant variables, there was a significant difference between Full Bloods and non-Full Bloods. A higher percentage of the Full Bloods than statistically expected (49.2%) felt that more contact would be helpful. Of those who indicated more contact would not be helpful, 64.4% were Full Bloods. Comparing responses by areas, it was found that the only significant differences occurred in the Muskogee and Navajo Areas. Students from the Muskogee Area were less apt to check "Yes" ($Chi^2$ 9.9) while those from the Navajo Area were more apt to check "Yes" ($Chi^2$ 38.9). This seems to correlate directly with responses to the previous question on frequency of contact. It should be pointed out, however, that 81% of the total sample felt that more contact would be helpful.

40. Student Opinion on What the TWO Main Objectives of the BIA Higher Education Program Are .

There were no significant differences between Age Groups or College Classifications. The table below represents responses according to Blood Quantum. Given the length of each item, the table is presented first, with a discussion of significant differences following.

TABLE XXIII STUDENT OPINION BY BLOOD QUANTUM ON WHAT THE TWO MAIN OBJECTIVES OF THE BIA HIGHER EDUCATION PROGRAM ARE

| | ITEMS | Total | Full Blood No. (%) | Non-Full Blood No. (%) | $Chi^2$ |
|---|---|---|---|---|---|
| (1) | To develop leadership among American Indians..... | 767 | 391 (14) | 376 (13) | 7.7 |
| (2) | To support self-determination.... | 679 | 345 (12) | 334 (12) | N.S. |
| (3) | To provide financial aid to Indian College Students..... | 916 | 400 (14.6) | 516 (18.8) | N.S. |
| (4) | To increase the general educational level of Indian People.. | 775 | 310 (11.3) | 465 (17) | 18.8 |
| (5) | To help Indian Youth develop to their full potential..... | 1,092 | 451 (16.5) | 641 (23.4) | 20.5 |
| (6) | I don't know what they are or should be..... | 131 | 87 ( 3.2) | 44 ( 1.6) | 20.7 |
| (7) | To meet the trust responsibilities | 218 | 111 ( 4 ) | 107 ( 3.9) | N.S. |
| (8) | Other..... | 105 | 46 ( 1.7) | 59 ( 2.1) | NS |

More Full Bloods than statistically expected checked Item I "To develop leadership" and Item 6 "I don't know." Non-Full Bloods checked Item 4 "To increase the general educational level" and Item 5 "To help Indian youth develop to their full potential" more than statistically expected.

When responses by area were compared (a), it was found that students from the Muskogee Area checked Items 5 and 2 more than statistically expected while students from the Navajo Area checked Item 2 more than statistically expected and Items 3 and 4 less than expected. Students from the Phoenix Area checked Item 6 "Don't know" in higher proportion than statistically expected. The following table indicates the responses by Areas and the total sample distribution:

TABLE XXIV STUDENT OPINION ON WHAT THE TWO MAIN OBJECTIVES OF THE BIA HIGHER EDUCATION PROGRAM ARE BY AREA OFFICE

| | ITEMS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AREA | #1 No. (%) | #2 NO. (%) | #3 No. (%) | #4 No. (%) | #5 No. (%) | #6 No. (%) | #7 No. (%) | #8 No. (%) |
| JUNEAU | 42 (30) | 29 (21) | 43 (31) | 36 (26) | 56 (41) | 9 (6) | 18 (13) | 6 (4) |
| MINNEAPOLIS | 98 (27) | 86 (24) | 134 (37) | 92 (25) | 149 (41) | 14 (3) | 23 ( 6) | 11 (3) |
| MUSKOGEE | 100 (23) | 84 (19.5) | 158 (36) | 151 (35.1) | 209 (48) | 11 (2) | 26 ( 6) | 16 (3) |
| NAVAJO | 164 (32) | 151 (29.8) | 144 (25.4) | 112 (23) | 177 (34) | 31 (6) | 36 ( 7) | 22 (4) |
| PHOENIX | 40 (24) | 54 (33) | 49 (30) | 31 (19) | 58 (36) | 18 (11) | 19 (11) | 5 (3) |
| TOTAL SAMPLE | 28% | 25% | 34% | 29% | 40% | 5% | 8% | 4% |

(a) Since each item was programmed separately for each Area Office, each cell has its own total and $Chi^2$. Inclusion of these figures would confuse the reader. Thus, the narrative above will serve to point out significant differences.

## HIGHER EDUCATION AUDIT

The attached educational audits of the Juneau, Minneapolis, Muskogee and Phoenix Areas reflect the variety in BIA Higher Education Programs. Phoenix, with a FY 72 budget of $1,245,311, supported 915 students. Muskogee, on the other hand, supported 1,555 students with a budget of $1,956,600. Average grants per student varied from $860 in the Minneapolis Area to $1,490 in the Juneau Area. Minneapolis with several tribally administered grant programs was the only area of the four audited to list "expansion of tribally administered programs" as one of their program objectives.

Table I below indicates the college classification of BIA supported students by Area. As can be seen, there are more graduate students in the Muskogee and Phoenix Areas. One can also see the marked decline in enrolment between the freshmen and sophomore populations in all Areas. Table II points out a significant difference in the number of college graduates ranging from 153 from the Muskogee Area too 33 from the Juneau Area. Here again acculturation appears to be an important factor.

Table III indicates the non-BIA Sources of Funding for students ranging from Federal and State Governments to Private Foundation grants and Loans. Amounts ranged from $343,101 for Juneau Area students to over $2 million for students from the Minneapolis Area. This is the converse of BIA funding level and reflects the supplemental nature of the BIA program.

The feature common to all the programs audited was that staffing was felt to be inadequate. This was expressed both directly and indirectly in comments related to inadequate record keeping and follow up on students, lack of time for promoting the professional growth of staff, lack of time to do counseling with high school students etc.

It was also pointed out that there was a need for simplification and standardization of reporting forms as well as overall BIA policies. This is particularly problemmatic for students from Oklahoma where there are two Area Offices utilizing different policies and procedures.

In general the audits reflected what appeared to be sound programs, with most funds utilized for grants or for directly related Support Services such as Indian College based Counselors and small Area and Agency based BIA Staff.

TABLE 1

NUMBER OF B.I.A. SUPPORTED STUDENTS BY COLLEGE CLASSIFICATION AND AREA FY 1972

| | JUNEAU (F.T.) | PHOENIX FT | PHOENIX PT | MINNEAPOLIS (FT) | MUSKOGEE FT | MUSKOGEE SUMMER | PT UNDERGRD |
|---|---|---|---|---|---|---|---|
| Freshmen | 559 | 422 | 418 | 989 | 766 | | |
| Sophmores | 234 | 187 | 190 | 240 | 302 | | |
| Juniors | 98 | 101 | 111 | 87 | 209 | | |
| Seniors | 58 | 56 | 57 | 52 | 212 | | |
| Graduates | 12 | 28 | 29 | 29 | 66 | | |
| Total | 961 | 794 | 805 | 1397 | 1555 | 95 | 16 |

N.B. Full time Students are indicated as F.T.; Part time students are indicates as P.T.

## TABLE II

### NUMBER OF COLLEGE GRADUATES FY 72 BY AREA AND MAJOR

| | JUNEAU | PHOENIX | MINNEAPOLIS | MUSKOGEE |
|---|---|---|---|---|
| Art | 2 | 2 | 3 | 4 |
| Educ. | 4 | 41 | 17(a) | |
| Admin. | 3 | | | 13 (includes 2MA+1PHD) |
| Tchg | 5 | | | 105 (includes 3MA) |
| Engineer. | 1 | 4 | 3 | 2 |
| Law&PreLaw | 1 | 2 | 1 | 2 |
| Med. | | | 1 | 4 |
| Ministry | | 1 | | 1 |
| Music | 1 | | | 4 (includes 1 MA) |
| Soc Work | 3 | 1 | 12 | 2 (both MA) |
| Other | 13(b) | 36(d) | 15 | 16(c) (includes 6 MA & 1 PHD) |
| Totals | 33 | 87 | 52 | 153 |

(a) includes 2 M.A. Students
(b) Social Sciences
(c) 2 Bio. Sciences, 2 Chem, 7 Psych, 1 Forestry, 1 Ag Ed.
(d) 5 Ag/Forestry, 19 Soc Sci, 3 Accounting, 1 Med/Legal Secty, 1 Rec, 1 Journ, 1 Ldrship, 1 Police Science

## TABLE III

### NON-BIA FUNDING SOURCES FY 72 BY AREA

| | JUNEAU | | PHOENIX | | MINNEAPOLIS | | MUSKOGEE | |
|---|---|---|---|---|---|---|---|---|
| | NO. | AMOUNT | NO. | AMOUNT | NO. | AMOUNT | NO. | AMOUNT |
| Tribes | 1 | $ 2,000 | 178(a) | $91,109 | | $ | 2 | $ 1,450 |
| Churches | - | - | - | - | - | - | - | - |
| Indiv. | - | - | - | - | - | - | - | - |
| Private Org. | - | - | 88 | 61,924 | - | - | 6 | 11,554 |
| Found. | - | - | - | - | - | - | - | - |
| Parents | 54 | 22,753 | 9 | 6,539 | 165 | 165,000 | 168 | 93,366 |
| EOG | 225 | 100,076 | 285 | 190,948 | 675(b) | 330,000 | 90 | 39,122 |
| VA | 29 | 45,017 | - | - | - | 60,000 | 178 | 268,934 |
| Empl. Ass. | - | - | - | - | - | - | - | - |
| Adult Ed. | - | - | - | - | - | - | - | - |
| Work Study | 87 | 46,851 | 22 | 11,635 | - | - | 117 | 58,183 |
| NDSL | 30 | 15,899 | 65 | 91,605 | - | - | 147 | 62,494 |
| Guar. Loans | - | - | - | - | - | - | - | - |
| Other | 58 | 110,505 | 50 | 31,613 | - | 260,000(b) | 144 | 85,033 |
| Student | - | - | 15 | 3,670 | - | - | - | - |
| Totals | | $343,101 | | $489,043 | | $2,020,000 | | $620,136 |

(a) Number of students
(b) Total for EOG, Work Study, NDSL
(c) Wisconsin and Minnesota State Aid

## APPENDIX B DEFINITION OF CHI-SQUARE TEST

The Chi-Square ($X^2$) test is an important and useful statistical tool utilized by social scientists in analyzing data. It can be employed to test differences between (1) an actual and hypothetical or previously established sample or (2) to test differences between two or more samples. The basic equation is:

$$X^2 = \frac{(\text{observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}$$

The $X^2$ value is then interpreted from a table of probability values in order to determine whether an observed difference is significant at the .05 or .01 level. In the Higher Education Survey the .01 level was utilized since it is a finer measure.

In interpreting the $Chi^2$ numbers, N.S. is used as an abbreviation for Not Significant (at the .01 level). This means that, while there might be numberical differences between samples, these differences were not statistically significant.